Hempel's Conversion Primer

Product characteristics

Description
Hempel's Conversion Primer is a two-component epoxy to enable easy conversion from antifouling to Hempel's advanced biocide-free fouling protection. Can be applied on previously painted antifouling in good condition.

Recommended use
For use as a conversion primer over antifouling to secure adhesion of Hempel's biocide-free products. Use as a tiecoat between an epoxy primed surface and Hempaspeed TF.

Service temperature:
- Minimum, recommended by Hempel for dry exposure: -50°C [-58°F].

Product safety

Flash point 31°C [88°F]

VOC content mixed product

Legislation	Value
EU	541 g/L [4.51 lb/US gal]

According to specific legislation, see details in the Explanatory Notes available at Hempel website, hempel.com or at your local Hempel website.

Handling
Handle with care. Before and during use, observe safety labels on packaging and paint containers and follow all local and national safety regulations. Always consult Hempel's Safety Data Sheet for this product along with the Product Data Sheet.

Product data

Product code: 45441

Product components: Base 45445 | Curing Agent 95441

Standard shade / code: Light pink 50711

Gloss: Flat

Volume solids: 36 ± 2%

Specific gravity: 1.2 kg/L [10 lb/US gal]

Reference dry film thickness: 25 micron [1.0 mils]

Surface preparation

Cleanliness
- Remove oil, grease and other contaminants by suitable detergent cleaning.

New build:
- Not for uncoated surfaces.
- Uncoated surface: Prepare bare substrates according to Hempel's primer instruction.

Maintenance and Repair
- Previously coated surface: Use a metal scraper to determine whether the aged antifouling adheres sufficiently. In case of bad adhesion, remove all loose/brittle layers.
- Abrade with wet abrasive paper.
- Rinse the surface with fresh water.
- Clean and dry the surface.
- Areas with filler to be sealed with primer/sealer.

Application

Mixing ratio
Base 45445 : Curing Agent 95441
(3 : 1 by volume)

Thinner
No thinning

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Cleaner
Hempel's Thinner 845 08451

Pot life

Product temperature	20°C [68°F]
Pot life	8 hours

Application method

Tool	Thinning max vol.	Application parameters
Brush/Roller	No thinning	-

Do not dilute the components separately - only the mixture.

Film thickness

	Recommended
Dry film thickness	25 micron [1.0 mils]
Wet film thickness	69 micron [2.7 mils]
Theoretical spreading rate	15 m²/L [611 sq ft/US gal]

Application conditions
- Surface temperature must be above 10°C [50°F] during application and curing.

Relative Humidity:
- Relative humidity must be below 85% during drying and curing.

Application remarks
- Previously coated surface: Apply 1 full coat undiluted.
- Be aware that the product has a very low viscosity and any runs and sags should be brushed out immediately.
- Overcoat with Hempel's advanced biocide free fouling protection products.

Drying and overcoating

Product compatibility
- Subsequent coat: Recommended products are:

Drying time

Surface temperature		10°C [50°F]	20°C [68°F]	30°C [86°F]
Hard dry	hours	2½	1¼	½
Ready to sand	hours	-	2	-
Fully cured	days	14	7	4

Determined for dry film thickness 25 micron [1.0 mils] at standard conditions, see Hempel's Explanatory Notes for details.

Overcoating

Hempel's specification supersedes any guidelines indicated in the overcoating table

Quality name		10°C [50°F]	20°C [68°F]	30°C [86°F]
		Immersion		
Hempel's Silic One Tiecoat 27450	Min Max	4 h 8 h	2 h 4 h	60 min 2 h
Hempaspeed TF	Min Max	30 min 65 min	30 min 65 min	30 min 65 min

Drying conditions
- To obtain the drying time stated, it is important to maintain sufficient ventilation during application, drying and curing.
- Condensation on the freshly applied coating should be avoided.

Overcoating details
- If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.

Other remarks
- The surface must be clean before overcoating.

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Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	36 months
Curing Agent	36 months

Shelf life from date of production, when stored in original, unopened containers. Thereafter, the product quality must be re-inspected. Storage at elevated temperatures may reduce shelf life. The shelf life printed on product labels is based on regional climate conditions. For advice, please consult Hempel.

Storage conditions

- The curing agent is sensitive to moisture. Store in a dry place and keep the can tightly closed until use.
- Temperature must not go below 5°C [41°F] during transport and storage.
- The product must be stored in accordance with Safety Data Sheet, label and local regulations. Keep the containers in a dry, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	13.8 g CO_2e/m^2	0.072 lb CO_2e/ft^2

The carbon footprint is for 1 square meter / square foot of surface area with a dry film thickness of 1 micron / mil.

The scope includes raw materials, in-bound transport to the Hempel factory, Hempel manufacturing processes, and any Volatile Organic Compounds emitted during and after the application of the product.

It is calculated based on the standard shade defined in this PDS. Values may vary with shade.

Additional documents

Additional information is available at the Knowledge Center: https://www.hempel.com/knowledge-center . The documents below can be found in the Technical Guidelines section: https://www.hempel.com/knowledge-center/technical-guidelines or at the Hempel website.

- Explanatory Notes for Product Data Sheet.
- Application methods.

This Product Data Sheet ("**PDS**") relates to the supplied product ("**Product**") and is subject to updating from time-to-time. Accordingly, the buyer/applicator should have regard to the PDS supplied together with the relevant batch of the Product (and not an earlier version). In addition to the PDS, the buyer/applicator may receive some or all of the following specifications, statements and/or guidelines as listed below or as are available from the Hempel website under 'Products' at www.hempel.com (the "**Additional documents**"):

No.	Document description	Location/comments
1.	Technical Statement	One-off specific advice provided on request for specific projects
2.	Specification	Only issued for specific projects
3.	PDS	This document
4.	Explanatory Notes to the PDS	Available at www.hempel.com and contain relevant information about the Product testing parameters
5.	Application Instruction	Where available, at www.hempel.com
6.	Generic technical guidelines (e.g. on application and surface preparation)	Where available, at www.hempel.com

In the event of a conflict of information between the PDS and the Additional documents, the order of priority of information shall be in the order as set out above. In such event you should also contact your representative at Hempel for clarification. Furthermore, the buyer/applicator must have full regard to the relevant Safety Data Sheet provided with each Product and which can also be downloaded from www.hempel.com.

Hempel shall not be liable for defects where the application of the Product has not been made fully in accordance with the recommendations and requirements set out in the relevant PDS and the Additional Documents. The information and terms of this disclaimer apply to this PDS, the Additional documents and any other documents supplied by Hempel in respect of the Product. In addition, the Product is supplied and all technical assistance is given subject to Hempel's General Conditions of Sale, Delivery and Service, unless otherwise expressly agreed in writing.